

**Remarks and Arguments**

Reconsideration is respectfully requested.

Claims 32-67 are pending in the present application before this amendment. By the present amendment, claims 40 and 50 have been canceled without prejudice, and claims 32 and 50 have been amended, where claim 32 has been amended by incorporating the limitations of canceled claim 40 and claim 50 has been amended by incorporating the limitations of canceled claim 58. No new matter has been added.

**Examiner Interview for 101 rejections only**

The applicants respectfully thank the examiner for conducting an Examiner Interview on June 8, 2010 from our prepared and faxed proposed claim amendments for overcoming the 35 U.S.C. §101 for claims 32 and 50, which were sent to the USPTO on June 7, 2010. The examiner is especially thanked for taking the time to allow the applicants' attorney to present and then explain how the amendment to claim 32 and claim 50 overcome the rejection under 35 U.S.C. §101, which are based on the examiner's comments in the office action dated May 7, 2010. From our discussion during the Examiner Interview, the examiner appeared to agree that the 101 rejection(s) should be overcome. However, no official agreement was reached for the proposed faxed amendment of claim 32 (and similarly claim 50) for overcoming the rejection(s) under 35 U.S.C. §101. Further, the examiner stated that he would only make an official decision upon review of our arguments after being submitted in applicant's response to the USPTO.

In the office action (page 6), the specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. In response, claims 32 and 50 have been amended to provide the proper antecedent basis for the claimed subject matter, which are based on the examiner's comments and/or suggestions and the specification. Therefore, withdrawal of the outstanding objection is respectfully requested.

In the office action (page 8), claims 50-67 stand rejected under 35 U.S.C. §112, ¶2, as being incomplete for omitting essential steps. In response, we propose amending claim 50 to indicate having a method step for producing functional and tangible results on a machine, which are based on the examiner's comments and/or suggestions and the specification. Therefore, withdrawal of the outstanding rejection is respectfully requested.

In the office action (page 8), claims 32-49 stand rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. In response, the applicants have amended claim 32 to read as follows, inter alia:

**--a service controller having a processor and a memory non-transitory computer readable recording medium, the memory non-transitory computer readable recording medium having stored thereon:--**

In response, independent claim 32 has been amended to include a --service controller having a processor-- and a --non-transitory computer readable recording medium--, which are based on the examiner's comments and/or suggestions for being physical hardware devices, the applicants additionally respectfully submit that the

rejection under 35 USC 101 is now overcome and should therefore be respectfully withdrawn for the reasons mentioned above. Therefore, withdrawal of the outstanding rejection is respectfully requested.

In the office action (page 10), claims 50-67 stand rejected under 35 U.S.C. §101 because the claimed invention lacks patentable utility and thus is non-statutory subject matter. In response, independent claim 50 has been amended to add ~~--by a processor--~~ and to add ~~--computerized--~~ method along with providing step for the ~~--computerized--~~ method.

Accordingly, the applicants respectfully submit that amended claim 50 is directed to statutory subject matter because they are tied to a particular machine as defined by the Board of Patent Appeals and Interferences in *Ex parte* Wayne Lewis Dickerson, Jr. (BPAI, July 9, 2009) and is both definite for being particular machine. The applicants further submit that claims 51-67 are also directed to statutory subject matter and definite because they depend upon amended either claim 50. Therefore, the applicants respectfully request that the 35 U.S.C. §101 rejection be withdrawn.

### **103 Rejections**

In the office action (page 11), claims 32-43, 49-61 and 67 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Publication No. 2004/0220926 (Lamkin) further in view of U.S. Patent No. 7,185,049 (Benitez).

In the office action (page 18), claims 44-48 and 62-66 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Lamkin further in view of U.S. Patent No. 7,055,168 (Errico).

The applicants have amended claim 32 (and similarly claim 50) to further clarify the presently claimed invention and to traverse the examiner's rejection.

**Comments for overcoming the 103 Rejections**

Claim 32 (and similarly claim 50) has been amended to better clarify the presently claimed invention, which recites inter alia:

--wherein the package metadata includes component metadata for describing attributes of the contents, relation metadata for describing temporal/spatial relation of the contents, and targeting condition metadata for describing the conditions,

**wherein the relation metadata include:**  
**temporal relation information for describing a temporal**  
**sequence of contents consumption; and**  
**spatial relation information for describing relative locations of**  
**the contents consumption--.**

The presently claimed invention relates to a package metadata and targeting/synchronization service providing system; and, more particularly, to a package metadata and targeting and synchronization service providing system that applies digital Item Declaration (DID) of a Moving Picture Experts Group (MPEG) 21 to **television (TV)-Anytime service.**

Conventional targeting and synchronization service, which is now under standardization progress in Calls For Contributions (CFC), which is Television (TV)-Anytime Phase 2 of Metadata Group, is similar to a personal program service which is appropriate for an environment that consumes user preference suggested conventionally and new types of contents including video, audio, image, text, Hypertext Markup Language (HTML) (refer to TV-Anytime contribution documents AN515 and AN525). That is, the conventional targeting and synchronization service automatically

filters and delivers personalized content services properly to a terminal, a service environment, and user profile in consideration of synchronization between contents.

Hereafter, the conventional targeting and synchronization service scenario is detail. Generally, family members of a family consume audio/video (AV) programs in their own ways in a home network environment connecting diverse media devices, such as Personal Digital Assistant (PDA), Moving Picture Experts Group (MPEG) Audio Layer 3 (MP3) player, Digital Versatile Disc (DVD) player and the like.

For example, the youngest sister who is an elementary school student likes to watch a sit-com program on a High-Definition (HD) TV. On the other hand, an elder sister who is a college student likes to watch a sit-com program with a Personal Digital Assistant (PDA) through multi-lingual audio stream to improve her language skill.

As show above, the contents consumption pattern is different according to each person and it depends on a variety of conditions such as terminals, networks, users, and types of contents.

Therefore, a contents and service provider in the business of providing a personalized service properly to a service environment and user profile requires a targeting service necessarily.

Also, the TV-Anytime phase 2 allows users to consume not only the simple audio/video for broadcasting **but also diverse forms of contents including video, audio, moving picture, and application programs**. These different forms of contents can make up an independent content.

Furthermore, it is also possible to form content with **temporal, spatial and optional relations between them**. In the case of forming the content with temporal,

spatial and optional relations between them, a synchronization service which describes the time point of each content consumption by describing the temporal relations between a plurality of contents is necessary to make a user consume the content equally with the other users or consume content in the form of a package consistently even though it is used several times.

Accordingly, the presently claimed invention discloses that in order to identify packages and constitutional elements, **the temporal and spatial formation of the constitutional elements and the relation between are more specified**. Also, metadata for conditions describing a usage environment in which the target service is used are specified, and metadata for describing information on the types of the components should be embodied more specifically.

That is, the presently claimed invention provides package metadata for a targeting and synchronization service where this above mentioned temporal and spatial formation of the constitutional elements and the relation between are more specified **by having the temporal relation information for describing a temporal sequence of contents consumption and the spatial relation information for describing relative locations of the contents consumption**. As a result, the presently claimed invention is able to provide **content** formed of components to diverse terminals in the form of a package in a targeting and synchronization service providing system **without requiring any type of request from the user terminal and without any additional searching for the determined content to find the appropriate content** such that the package metadata which include: package description information for selecting a package desired by a user and describing general information on an individual package to check

whether the selected package can be acquired; and container metadata for describing information on a container which is a combination of diverse packages and formed of a set of items, each of which is a combination of components.

As a result, the presently claimed invention described above can apply Moving Picture Experts Group (MPEG)-21 Digital Item Declaration (DID) to television (TV)-Anytime service effectively by discriminating constitutional elements from packages, specifying temporal (i.e.; **information for describing a temporal sequence of contents consumption**), spatial (i.e.; **information for describing relative locations of the contents consumption**), and interactive relation between the constitutional elements, specifying conditions of metadata describing an environment used for a targeting and synchronization service, and providing concrete metadata describing each constitutional element.

Nowhere in Lamkin, discloses or suggests the presently claimed invention of claim 32 (and similarly claim 50) as amended, which recites as follows: --wherein the package metadata includes component metadata for describing attributes of the contents, relation metadata for describing temporal/spatial relation of the contents, and targeting condition metadata for describing the conditions, wherein the relation metadata include: temporal relation information for describing a temporal sequence of contents consumption; and spatial relation information for describing relative locations of the contents consumption--. The Benitez and/or Errico reference(s) fails to cure this defect of Lamkin.

In contrast, the applicants respectfully point out that Lamkin fails to disclose or even mention having "spatial relation information for describing relative locations of the

contents consumption" as recited in amended claim 32 (and similarly claim 50). To emphasize this difference from the presently claimed invention having this spatial relation information, Lamkin **only** discloses temporal relation information (Lamkin [0376]), where Lamkin describes that the collection metadata can include information about **when along the timeline** each of the entities will be displayed in relation to the other entities. Lamkin demonstrates this difference for **not** having spatial relation information from the presently claimed invention, which has "spatial relation information for describing relative locations of the contents consumption", by showing each entity being displayed **according to the master timeline**. That is, Lamkin **only** discloses temporal information (i.e.; no spatial relationship) by showing each entity according to the master timeline.

Accordingly, Lamkin can not disclose "spatial relation information for **describing relative locations of the contents consumption**", because the showing of each entity according to the master timeline described by Lamkin is **not** for describing relative locations of the contents consumption but for explaining temporal information as disclosed by claim 32 (and similarly claim 50) of the presently claimed invention.

Hence, nowhere in the examiner's cited references and especially Lamkin, neither alone or in combination, teaches, discloses, or mentions the features of claim 32 of the presently claimed invention, which recites inter alia: --wherein the package metadata includes component metadata for describing attributes of the contents, relation metadata for describing temporal/spatial relation of the contents, and targeting condition metadata for describing the conditions, wherein the relation metadata include: temporal relation information for describing a temporal sequence of contents



consumption; and spatial relation information for describing relative locations of the contents consumption--. Therefore, an indication of allowable subject matter with respect to claim 32 is respectfully requested.

As to claims 33-49, the applicants respectfully submit that these claims are allowable at least since they depend from claim 32, which is now considered to be in condition for allowance for the reasons above.

As to independent claim 50, independent claim 50 recites similar features to those found in claim 32. Therefore, for reasons analogous to those argued above with respect to claim 32, claim 50 is patentable over the applied references.

As to claims 51-67, the applicants respectfully submit that these claims are allowable at least since they depend from claim 50, which is now considered to be in condition for allowance for the reasons above for claim 32.

For the reasons set forth above, the applicants respectfully submits that claims 32-39, 41-57, and 59-67, now pending in this application, are in condition for allowance over the cited references. Accordingly, the applicants respectfully request reconsideration and withdrawal of the outstanding rejections and earnestly solicit an indication of allowable subject matter. This amendment is considered to be responsive to all points raised in the office action. Should the examiner have any remaining questions or concerns, the examiner is encouraged to contact the undersigned attorney by telephone to expeditiously resolve such concerns.

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Respectfully submitted,

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Keith S. Van Duyne  
Keith S. Van Duyne, Reg. No. 54,505  
Ladas & Parry  
224 South Michigan Avenue  
Chicago, Illinois 60604  
(312) 427-1300